DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

1EZ6.2 THRU 1EZ300

TECHNICAL SPECIFICATIONS OF GLASS PASSIVATED JUNCTION ZENER DIODES

VOLTAGE RANGE - 6.2 to 300 Volts *POWER - 1.0 Watts*

FEATURES

* Voltage Range: 6.2V to 300V
* Low leakage
* Low inductance
* High peak reverse power disspation
* Glass passivated junction
* Build-in strain relief

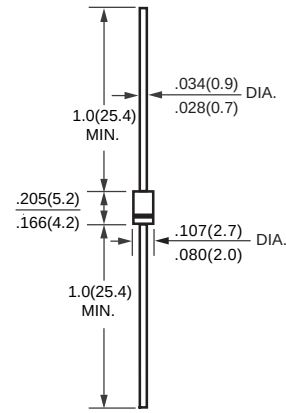
MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.33 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

DO-41



Dimensions in inches(millimeters)

	SYMBOL	VALUE	UNITS
Maximum Power Dissipation @T_L=50°C (Note 1)	Ptot	1.0	W
Peak pulse current with a 10/1000μs waveform	V_F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note 2)	$R_{\theta JA}$	170	°C/W
Junction Temperature Range	T_J	-55 to +175	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C

NOTES : 1. T_L=Lead temperature at 3/8" (9.5mm) from body.
2. Valid provided that leads are kept at ambient temperature at a distance of 10 mm form case.

Fig. 1 - POWER TEMPERATURE DERATING CURVE

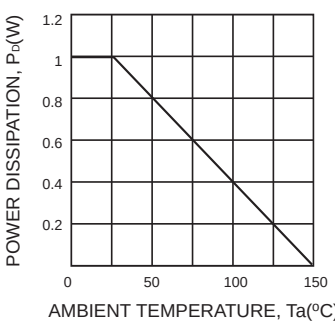


Fig. 2 - TYPICAL THERMAL RESISTANCE VERSUS LEAD LENGTH

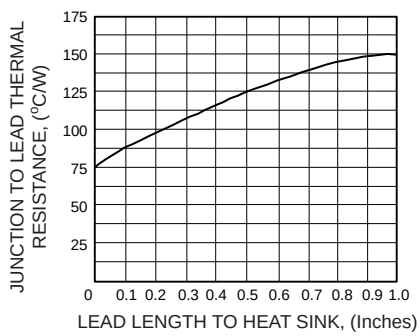
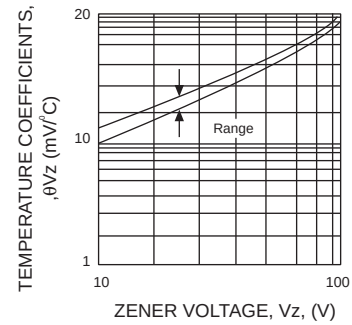


Fig. 3 - TEMPERATURE COEFFICIENTS v.s. ZENER VOLTAGE



RATING AND CHARACTERISTIC CURVES (1EZ6.2 THRU 1EZ300)

TYPE	Nominal Zener Voltage $V_Z@I_{ZT}$	Zener Test Current I_{ZT} mA	Maximum Zener Impedance		I_{ZK}	Maximum Reverse Leakage Current		Maximum Regulator Current I_{ZM} mA
			$Z_{ZT}@I_{ZT}$ Ohms	$Z_{ZK}@I_{ZK}$ Ohms	mA	I_R uA	@V_R Volts	
1EZ6.2	6.2	41.0	2.0	700	1.00	10.0	3.0	730
1EZ6.8	6.8	37.0	3.5	700	1.00	5.0	4.0	660
1EZ7.5	7.5	34.0	4.0	700	0.50	5.0	5.0	605
1EZ8.2	8.2	31.0	4.5	700	0.50	5.0	6.0	550
1EZ9.1	9.1	28.0	5.0	700	0.50	0.5	7.0	500
1EZ10	10.0	25.0	7.0	700	0.25	0.5	7.6	454
1EZ11	11.0	23.0	8.0	700	0.25	0.1	8.4	414
1EZ12	12.0	21.0	9.0	700	0.25	0.1	9.1	380
1EZ13	13.0	19.0	10	700	0.25	0.1	9.9	344
1EZ15	15.0	17.0	14	700	0.25	0.1	11.4	305
1EZ16	16.0	15.5	16	700	0.25	0.1	12.2	285
1EZ18	18.0	14.0	20	750	0.25	0.1	13.7	250
1EZ20	20.0	12.5	22	750	0.25	0.1	15.2	225
1EZ22	22.0	11.5	23	750	0.25	0.1	16.7	205
1EZ24	24.0	10.5	25	750	0.25	0.1	18.2	190
1EZ27	27.0	9.5	35	750	0.25	0.1	20.6	170
1EZ30	30.0	8.5	40	1000	0.25	0.1	22.8	150
1EZ33	33.0	7.5	45	1000	0.25	0.1	25.1	135
1EZ36	36.0	7.0	50	1000	0.25	0.1	27.4	125
1EZ39	39.0	6.5	60	1000	0.25	0.1	29.7	115
1EZ43	43.0	6.0	70	1500	0.25	0.1	32.7	110
1EZ47	47.0	5.5	80	1500	0.25	0.1	35.8	95
1EZ51	51.0	5.0	95	1500	0.25	0.1	38.8	90
1EZ56	56.0	4.5	110	2000	0.25	0.1	42.6	80
1EZ62	62.0	4.0	125	2000	0.25	0.1	47.1	70
1EZ68	68.0	3.7	150	2000	0.25	0.1	51.7	65
1EZ75	75.0	3.3	175	2000	0.25	0.1	56.0	60
1EZ82	82.0	3.0	200	3000	0.25	0.1	62.2	55
1EZ91	91.0	2.8	250	3000	0.25	0.1	69.2	50
1EZ100	100.0	2.5	350	3000	0.25	0.1	76.0	45
1EZ110	110.0	2.3	450	4000	0.25	0.1	83.6	40
1EZ120	120.0	2.0	550	4500	0.25	0.1	91.2	37
1EZ130	130.0	1.9	700	5000	0.25	0.1	98.8	34
1EZ150	150.0	1.7	1000	6000	0.25	0.1	114.0	30
1EZ160	160.0	1.6	1100	6500	0.25	0.1	121.6	28
1EZ180	180.0	1.4	1200	7000	0.25	0.1	136.8	25
1EZ200	200.0	1.2	1900	9990	0.25	0.1	152.0	22
1EZ220	220.0	1.0	1600	8000	0.25	0.1	167.2	20
1EZ240	240.0	0.9	1800	8500	0.25	0.1	182.4	19
1EZ250	250.0	0.9	2000	9000	0.25	0.1	190.0	18
1EZ270	270.0	0.8	2100	9000	0.25	0.1	205.0	16
1EZ300	300.0	0.8	2300	9500	0.25	0.1	228.0	15

NOTE: Standard Zener Voltage Tolerance ± 5%

Fig. 4 - MAXIMUM SURGE POWER